NEUROSCIENCE LETTERS

VOLUME 95, Nos. 1–3 **CONTENTS** **DECEMBER 19th, 1988**

(Cited in Biological Abstracts (BIOSIS), Chemical Abstracts, Current Contents/Life Sciences, Excerpta Medica (EMBASE), Index Medicus, PASCAL M and Science Citation Index)

Vasoactive intestinal polypeptide (VIP) immunoreactivity in the ependymal cells of the rat spinal cord (NSL 05727)
K. Chung and W.T. Lee (U.S.A.) 1

In vivo and in vitro autoradiographic labelling of central dopaminergic systems with [^{3}H]GBR12783 in rodents (NSL 05731)
I. Leroux-Nicollet and J. Costentin (France) 7

Localization of glucocorticoid receptor in neuropeptide Y-containing neurons in the arcuate nucleus of the rat hypothalamus (NSL 05662)
S. Hisano, Y. Kagotani, Y. Tsuruo, S. Daikoku, K. Chihara and M.H. Whitnall (Japan, U.S.A.) 13

Cholinergic neurons from the dorsolateral pons project to the medial pons: a WGA-HRP and choline acetyltransferase immunohistochemical study (NSL 05682)
P.J. Shiromani, D.M. Armstrong and J.C. Gillin (U.S.A.) 19

'Photo-degeneration' of neurones after extracellular dye application (NSL 05746)
S. Picaud, H.-J. Wunderer and N. Franceschini (France) 24

Changes in choline acetyltransferase immunoreactivity and the number of immunoreactive fibers remaining after lesions to the magnocellular basal nucleus of rats (NSL 05732)
H. Ojima, T. Sakurai and T. Yamasaki (Japan) 31

Colocalization of GABA and glycine immunoreactivities in a subset of retinal neurons in tiger salamander (NSL 05729)
S. Yazulla and C.-Y. Yang (U.S.A.) 37

L-DOPA-immunoreactive neurons in the rat hypothalamic tuberal region (NSL 05739)
H. Okamura, K. Kitahama, N. Mons, Y. Ibata, M. Jouvet and M. Geffard (Japan, France) 42

Endogenous L-DOPA, its immunoreactivity in neurons of midbrain and its projection fields in the cat (NSL 05760)
K. Kitahama, N. Mons, H. Okamura, M. Jouvet and M. Geffard (France, Japan) 47

Trigeminal motoneurons in frogs develop a new dendritic field during metamorphosis (NSL 05748)
B.M. Rosenthal and K.E. Alley (U.S.A.) 53

Immunocytochemical study of serotoninergic and noradrenergic innervation of the ventrobasal complex of the rat thalamus (NSL 05749)
F. Nothias, B. Onteniente, F. Roudier and M. Peschanski (France) 59

Adrenergic development of neural crest cells grown in a defined medium under a reconstituted basement-membrane-like matrix (NSL 05762)
G.D. Maxwell and M.E. Forbes (U.S.A.) 64

Non-specific effects of the putative cholinergic neurotoxin ethylcholine mustard aziridinium ion in the rat brain examined by autoradiography, immunocytochemistry and gel electrophoresis (NSL 05756)
Y.S. Allen, R.M. Marchbanks and J.D. Sinden (U.K.) 69

Localization of calcitonin gene-related peptide (CGRP) at a neuronal nicotinic synapse (NSL 05761)
H.B. Peng and Q. Chen (U.S.A.) 75

Two-dimensional immunoblotting analysis and immunocytochemical localization of the secretory polypeptide 7B2 in adrenal medulla (NSL 05764)
M. Marcinkiewicz, R. Fischer-Colbrie, J.P. Falgueyret, S. Benjannet, N.G. Seidah, C. Lazure, H. Winkler and M. Chrétien (Canada, Austria) 81

The effect of neonatal deafferentation or deefferentation on the immunocytochemistry of muscle spindles in the rat (NSL 05785)
J. Kucera and J.M. Walro (U.S.A.) 88

(Contents continued on p. 370.)

CONTENTS *(continued from back cover)*

Aberrant morphology of serotonergic fibers in the forebrain of the aged rat (NSL 05766)
M.G.P.A. van Luijtelaar, H.W.M. Steinbusch and J.A.D.M. Tonnaer (The Netherlands) 93

Anatomical evidence for red nucleus projections to motoneuronal cell groups in the spinal cord of the monkey (NSL 05770)
G. Holstege, B.F. Blok and D.D. Ralston (U.S.A., The Netherlands) 97

Ultrastructural evidence for direct monosynaptic rubrospinal connections to motoneurons in *Macaca mulatta* (NSL 05769)
D.D. Ralston, A.M. Milroy and G. Holstege (U.S.A.) 102

Adrenergic neurons in sheep brain demonstrated by immunohistochemistry with antibodies to phenylethanolamine *N*-methyltransferase (PNMT) and dopamine-β-hydroxylase (DBH): absence of the C_1 cell group in the sheep brain (NSL 05773)
Y. Tillet (France) 107

Receptor autoradiographic evidence of specific brain natriuretic peptide binding sites in the porcine subfornical organ (NSL 05786)
M. Niwa, K. Shigematsu, M. Kurihara, Y. Kataoka, T. Maeda, K. Nakao, H. Imura, H. Matsuo, H. Tsuchiyama and M. Ozaki (Japan) 113

Sauvagine/urotensin I-like immunoreactivity in the brain of the dogfish, *Scyliorhinus canicula* (NSL 05789)
M. Vallarino, I. Ottonello, L. D'Este and T. Renda (Italy) 119

Convergence of afferent fibers from the entopeduncular nucleus and the substantia nigra pars reticulata onto single neurons in the ventromedial thalamic nucleus: an electron microscope study in the cat (NSL 05790)
T. Moriizumi, Y. Nakamura, H. Tokuno, M. Kudo and Y. Kitao (Japan) 125

An *N*-methyl-D-aspartate receptor mediated excitatory postsynaptic potential evoked in subthalamic neurons in an in vitro slice preparation of the rat (NSL 05737)
H. Nakanishi, H. Kita and S.T. Kitai (U.S.A.) 130

Leucomyosuppressin, a novel insect neuropeptide, inhibits evoked transmitter release at the mealworm neuromuscular junction (NSL 05733)
D. Yamamoto, S. Ishikawa, G.M. Holman and R.J. Nachman (Japan, U.S.A.) 137

Inositol trisphosphate-linked calcium mobilization couples substance P receptors to conductance increase in a rat pancreatic acinar cell line (NSL 05740)
S.-Y. Song, S. Iwashita, K. Noguchi and S. Konishi (Japan) 143

Candidate interneurons mediating peripherally evoked disynaptic inhibition of masseter motoneurons of both sides (NSL 05742)
H. Kamogawa, N. Hanashima, K. Naito and K. Kagaya (Japan) 149

Blockade of a late inhibitory postsynaptic potential in hippocampal CA3 neurons in vitro reveals a late depolarizing potential that is augmented by pentobarbital (NSL 05745)
R.H. Thalmann (U.S.A.) 155

Convergence of noncholinergic afferent neurons in the inferior mesenteric ganglion of the guinea pig (NSL 05750)
K.D. Keef and D.L. Kreulen (U.S.A.) 161

Renal and cardiovascular afferent inputs to hypothalamic paraventriculo-spinal neurons (NSL 05772)
M.M. Caverson and J. Ciriello (Canada) 167

Excitatory transmitters, ventral root potentials and $[K^+]_o$ in the isolated frog leg-spinal cord preparation (NSL 05777)
A.H. Holohean, J.L. Vega, J.C. Hackman and R.A. Davidoff (U.S.A.) 173

The contribution of vestibular input to the stabilization of human posture: a new experimental approach (NSL 05783)
G.A. Horstmann and V. Dietz (F.R.G.) 179

Microinjections of glutamate or morphine at coincident midbrain sites have different effects on nociceptive dorsal horn neurons in the rat (NSL 05730)
E. Carstens, B. Stelzer and M. Zimmermann (F.R.G.) 185

CONTENTS *(continued from back cover)*

B vitamins suppress spinal dorsal horn nociceptive neurons in the cat (NSL 05735)
Q.-G. Fu, E. Carstens, B. Stelzer and M. Zimmermann (F.R.G.) 192
Naloxone-precipitated contractions of the guinea pig ileum made tolerant to a synthetic opioid peptide: evidence against the involvement of capsaicin-sensitive neurons (NSL 05728)
L. Barthó (Hungary) 198
Differential expression of glutamate receptors in *Xenopus* oocytes injected with messenger RNA from lobster muscle (NSL 05734)
N. Kawai, M. Saito and S. Ohsako (Japan) 203
Ring-substituted amphetamine interactions with neurotransmitter receptor binding sites in human cortex (NSL 05736)
P.A. Pierce and S.J. Peroutka (U.S.A.) 208
Reproductive hormones control striatal tyrosine hydroxylase activity in the male rat (NSL 05738)
P. Abreu, G. Hernandez, C.H. Calzadilla and R. Alonso (Spain) 213
Efects of methamphetamine upon circadian rhythms in multiple unit activity inside and outside the suprachiasmatic nucleus in the golden hamster *(Mesocricetus auratus)* (NSL 05741)
K. Omata and H. Kawamura (Japan) 218
Intracerebroventricular injection of brain natriuretic peptide inhibits vasopressin secretion in conscious rats (NSL 05743)
T. Yamada, K. Nakao, H. Itoh, G. Shirakami, K. Kangawa, N. Minamino, H. Matsuo and H. Imura (Japan) 223
Reduction of aromatic L-amino acid decarboxylase activity in clonal pheochromocytoma PC12h cells by culture in the presence of *N*-methyl-4-phenylpyridinium ion (MPP^+) (NSL 05744)
M. Naoi, H. Ichinose, T. Takahashi, I. Nagatsu and T. Nagatsu (Japan) 229
Cation interactions with putative NMDA receptor-gated channels labeled by [^{3}H]MK-801 in rat cerebral cortex (NSL 05751)
D.A. Greenberg and S.S. Marks (U.S.A.) 236
The effect of arginine vasopressin and V_1 receptor antagonist on brain water in cat (NSL 05752)
G.A. Rosenberg, E. Estrada and W.T. Kyner (U.S.A.) 241
The neurotoxicant MPTP (1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine) increases glial fibrillary acidic protein and decreases dopamine levels of the mouse striatum: evidence for glial response to injury (NSL 05754)
J.F. Reinhard Jr., D.B. Miller and J.P. O'Callaghan (U.S.A.) 246
Tetrahydroaminoacridine potentiates neurotoxicity of quinolinic acid in rat striatum (NSL 05755)
S.G. Zhu, E.G. McGeer, E.A. Singh and P.L. McGeer (Canada) 252
A new device for the quantitative assessment of dopaminergic drug effects in unilateral MPTP-lesioned monkeys (NSL 05757)
E.Ch. Wolters, J.C. Kebabian, M. Guttman, E. Mak, B.D. Pate and D.B. Calne (Canada, U.S.A.) 257
Expression of glycine and other amino acid receptors by rat spinal cord mRNA in *Xenopus* oocytes (NSL 05763)
H. Akagi and R. Miledi (U.S.A.) 262
Dextromethorphan does not protect against quinolinic acid neurotoxicity in rat striatum (NSL 05758)
T.M. Engber and T.N. Chase (U.S.A.) 269
Distinguishing in vitro electrochemical signatures for norepinephrine and dopamine (NSL 05759)
P.A. Broderick (U.S.A.) 275
Substance P(1–7) antagonizes substance P-induced aversive behaviour in mice (NSL 05765)
T. Sakurada, H. Kuwahara, K. Takahashi, S. Sakurada, K. Kisara and L. Terenius (Japan, Sweden) 281
Increased extracellular levels of ascorbate in the striatum after middle cerebral artery occlusion in the rat monitored by intracerebral microdialysis (NSL 05767)
L. Hillered, L. Persson, H.G. Bolander, Å. Hallström and U. Ungerstedt (Sweden) 286

CONTENTS *(continued from back cover)*

Pharmacological manipulation with the descending serotonergic system or transection of the mouse spinal cord has no effect on ependymal ultrastructure (NSL 05768)
R. Bjugn, H.K. Haugland, S. Hunskår, J.H. Rosland, O.J. Broch and P.R. Flood (Norway) 291

The electrophysiological effects of melatonin and a putative melatonin antagonist (*N*-acetyltryptamine) on rat suprachiasmatic neurones in vitro (NSL 05771)
R. Mason and A. Brooks (U.K.) 296

Marked reduction of rat brain glutathione following intracerebroventricular administration of the glutathione synthesis inhibitor L-buthionine sulfoximine (NSL 05774)
E. Pileblad and T. Magnusson (Sweden) 302

Serum acetylcholinesterase possesses trypsin-like and carboxypeptidase B-like activity (NSL 05776)
D.H. Small (Australia) 307

Reversal of the antinociceptive effects of intrathecally administered serotonin in the rat by a selective 5-HT_3 receptor antagonist (NSL 05778)
S.R. Glaum, H.K. Proudfit and E.G. Anderson (U.S.A.) 313

Ion and ion channel involvement in α-melanocyte-stimulating hormone secretion from superfused slices of rat hypothalamus (NSL 05780)
E. Tiligada and J.F. Wilson (U.K.) 318

Phorbol ester and dibutyryl cyclic AMP reduce content and efflux of taurine in primary cerebellar astrocytes in culture (NSL 05779)
R.A. Philibert and G.R. Dutton (U.S.A.) 323

Pertussis toxin pretreatment antagonizes the actions of μ- and δ-opiate agonists in hippocampal slices (NSL 05781)
T.V. Dunwiddie and M.-T. Su (U.S.A., Taiwan) 329

Dietary calcium modulates spinal cord content of calcitonin gene-related peptide in the rat (NSL 05782)
D.J. DiPette, K.N. Westlund and O.B. Holland (U.S.A.) 335

Cholecystokinin modulates neurotransmission through the dentate gyrus (NSL 05784)
C.M. Sinton (U.S.A.) 341

Comparative topography of dopamine- and tyrosin hydroxylase-immunoreactive neurons in the rat arcuate nucleus (NSL 05788)
H. Okamura, K. Kitahama, I. Nagatsu and M. Geffard (France, Japan) 347

Chicken gonadotropin-releasing hormone II increases plasma catecholamines in the bullfrog (NSL 05821)
J.X. Wilson, J.K. Butchey and A.A. Deshpande (Canada) 354

A kainate binding protein in pigeon cerebellum: purification and localization by monoclonal antibody (NSL 05858)
A.U. Klein, B. Niederoest, K.H. Winterhalter, M. Cuénod and P. Streit (Switzerland) 359

Author Index 365